

Amendments to the Claims

Please cancel claims 1-26. Please add new claims 27-33, as follows.

I-26. (Cancelled)

27. (New) A digital switch comprising:

a plurality of interconnected blades, wherein each of the blade comprises: (1) a plurality of physical ports each capable of receiving a packet of data; (2) first and second packet processors capable of processing packets at a rate of at least 10 gigabits/second; and (3) an interface adapter ASIC coupled to the first packet processor by a first serial link and to the second packet processor by a second serial link, whereby the first and second packet processors are interconnected through the interface adapter ASIC;

a switching circuit comprising a plurality of ports; and

a plurality of serial pipes each coupled between a respective one of the ports of the switching circuit and the interface adapter ASIC of a respective one of the plurality of interconnected blades, whereby the plurality of interconnected blades are interconnected through the switching circuit;

wherein the interface adapter ASIC of a respective said blade is adapted to serially receive a cell comprising packet data and in-band state information, the in-band state information comprising a blade identifier and a packet processor identifier, and to serially transmit the cell to the second packet processor of the respective said blade based on the in-band state information; and

wherein the switching circuit is adapted to serially receive a cell comprising packet data and in-band blade identifier information via a respective one of the serial pipes from the interface adapter ASIC of a source one of the plurality of interconnected blades, and based on

the in-band blade identifier information to serially transmit the cell via another of the serial pipes to the interface adapter ASIC of a destination one of the plurality of interconnected blades.

28. (New) The digital switch of claim 27, wherein the first packet processor of a respective said blade is adapted to locally switch packets between the plurality of physical ports coupled to the first packet processor, and wherein the second packet processor of a respective said blade is adapted to locally switch packets between the plurality of physical ports coupled to the second packet processor.

29. (New) The digital switch of claim 27, wherein the cell received by the interface adapter ASIC of a respective said blade comprises in-band control information.

30. (New) The digital switch of claim 27, wherein the cell received by the switching circuit comprises in-band control information.

31. (New) The digital switch of claim 27, wherein the cell received by the interface adapter ASIC of a respective said blade comprises a payload state identifier.

32. (New) The digital switch of claim 27, wherein the cell received by the switching circuit comprises in-band control information comprising a start of packet identifier.

33. (New) The digital switch of claim 27, wherein the cell received by the switching circuit comprises in-band control information comprising an end of packet identifier.